

Extended Hydrologic Outlook

March 8, 2022

- The Climate Prediction Center (CPC) is forecasting below normal rainfall for March through May.
- La Niña is present and likely to continue into the spring (77% chance during March-May 2022) and then transition to ENSO-neutral (56% chance during May-July 2022).
- Atlantic Multidecadal Oscillation (AMO) is currently in the warm phase:
 - Average annual inflow to Lake Okeechobee is nearly 50% greater during the warm phase compared to the cold phase

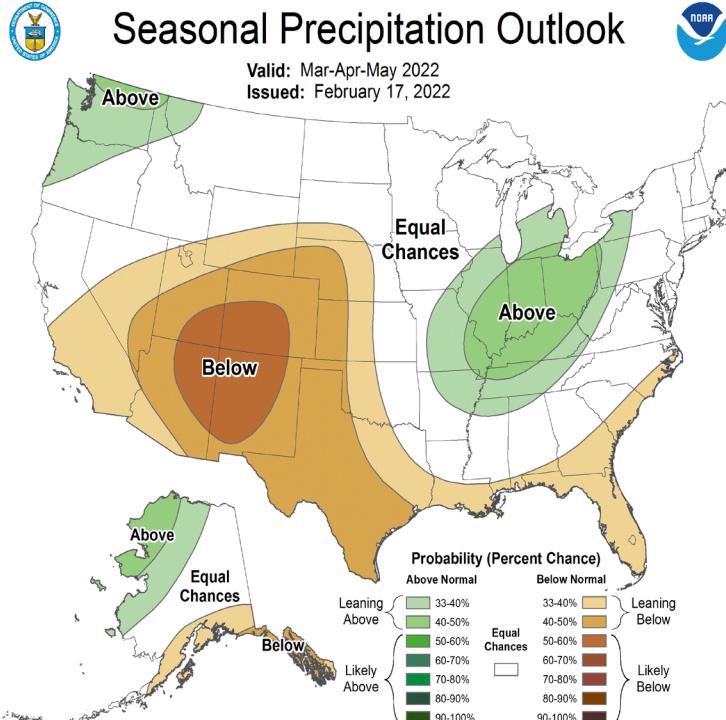
U. S. Seasonal Outlooks

March - May 2022

The seasonal outlooks combine the effects of long-term trends, soil moisture, and, when appropriate, ENSO.

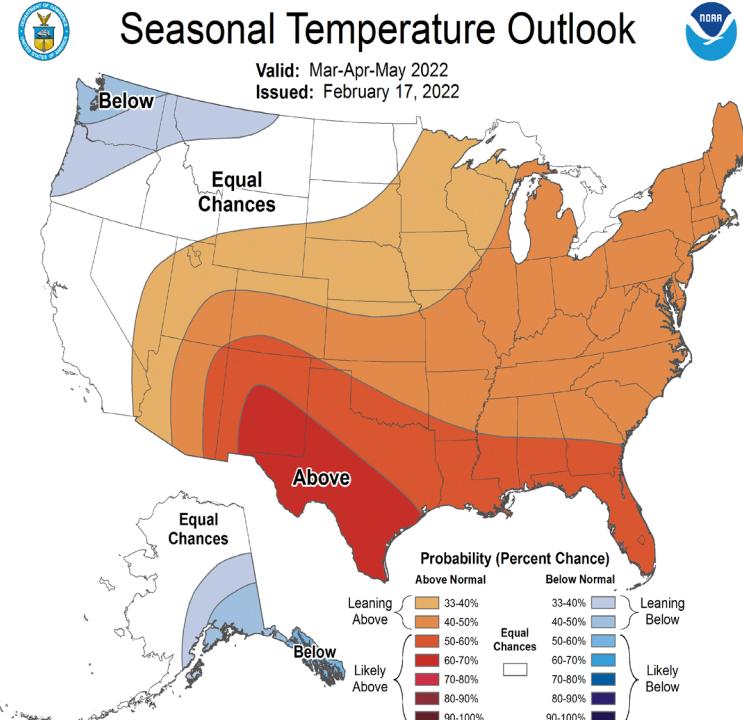
Precipitation

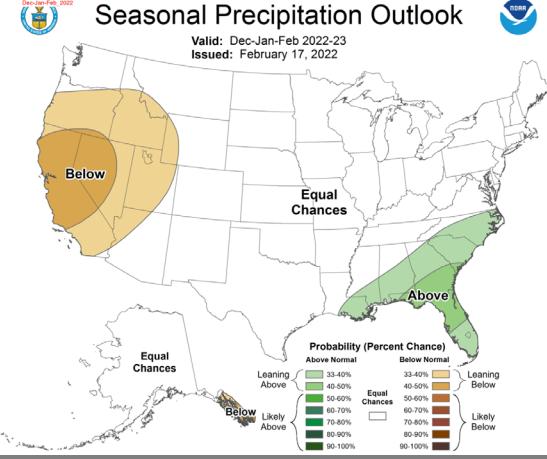
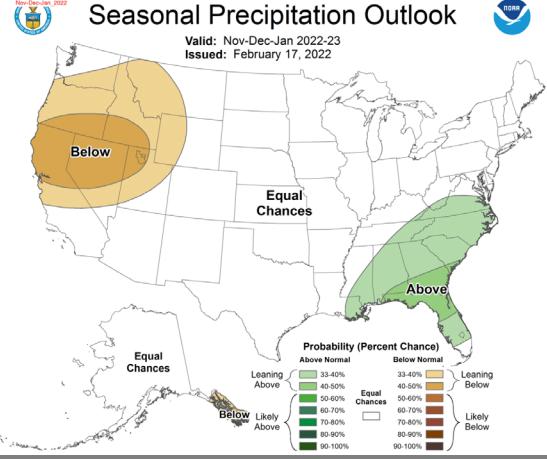
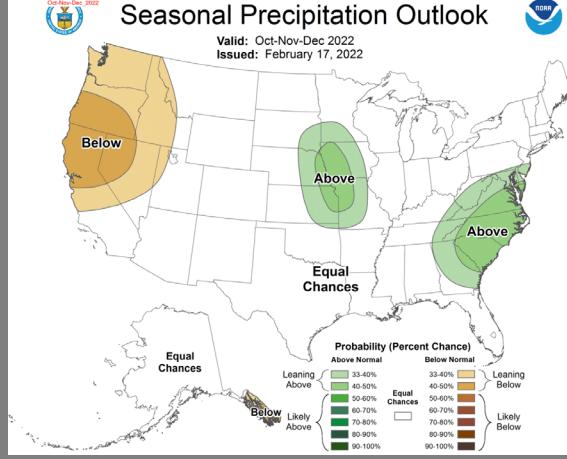
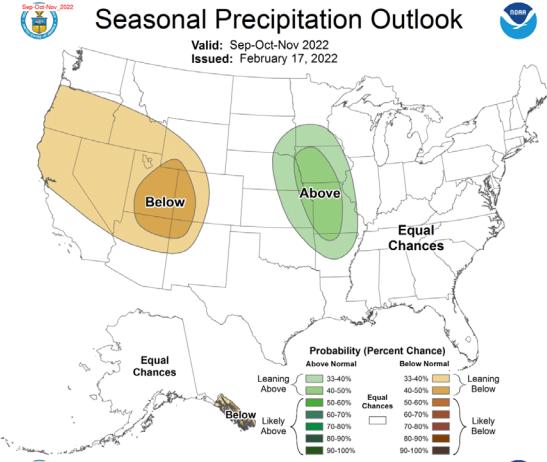
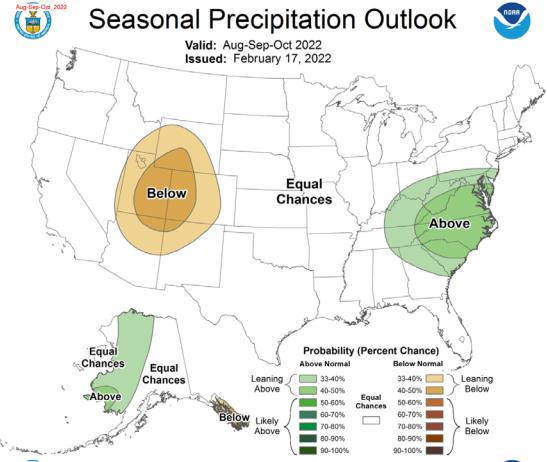
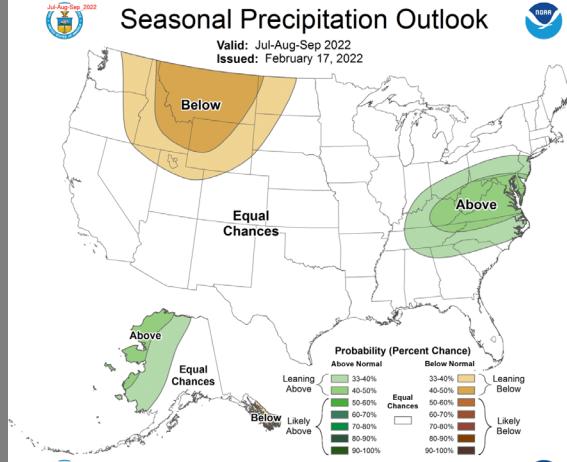
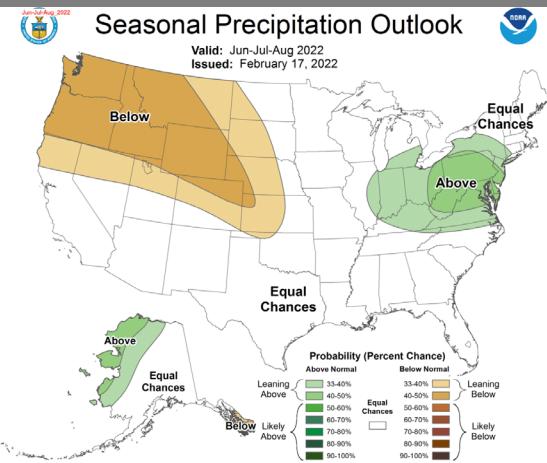
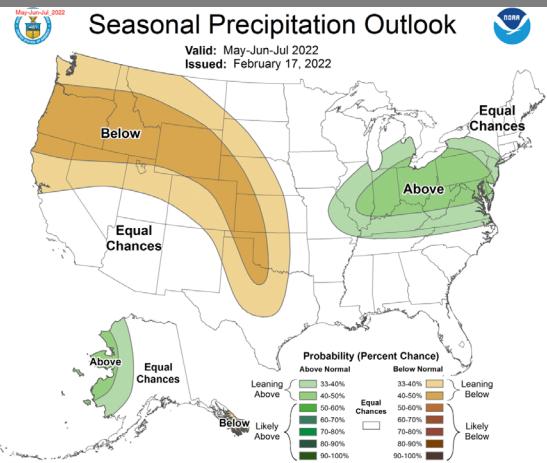
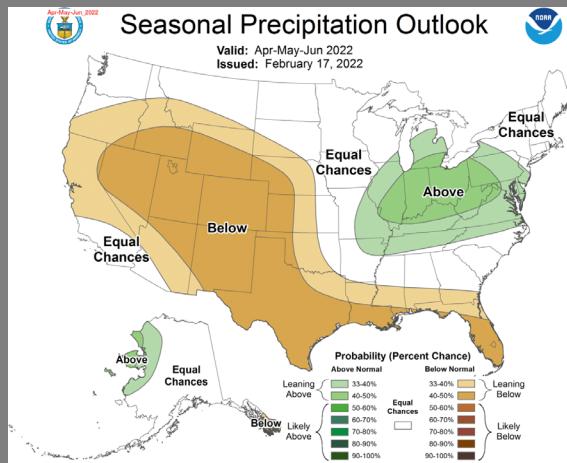
Seasonal Precipitation Outlook



Temperature

Seasonal Temperature Outlook





Teleconnections to South Florida

Climate anomalies being related to each other at large distances:

El Niño Southern Oscillation (ENSO)

El Niño increases the chances of a wetter-than-normal dry season and decreased tropical activity, La Niña increases the chances of a drier-than-normal dry season and increased tropical activity (both have most influence in south Florida from November through March).

Pacific Decadal Oscillation (PDO)

Increases variations of south Florida dry season rainfall

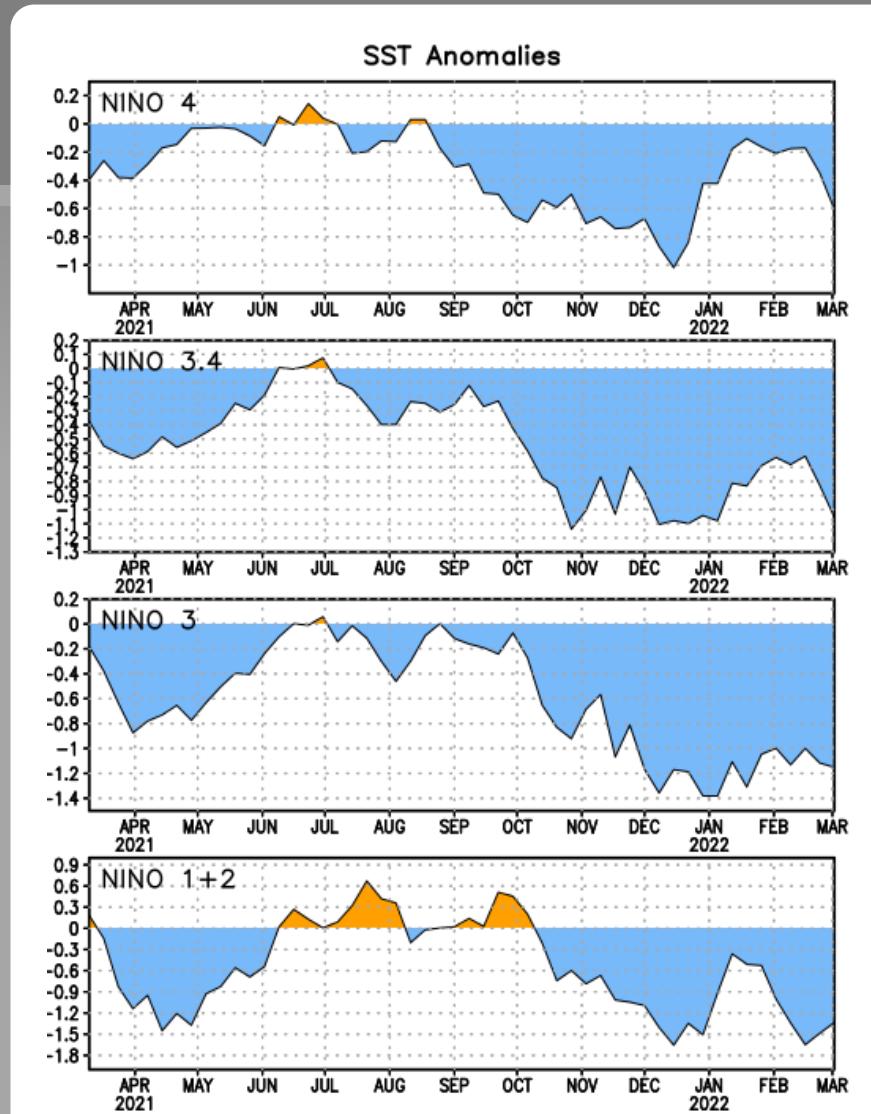
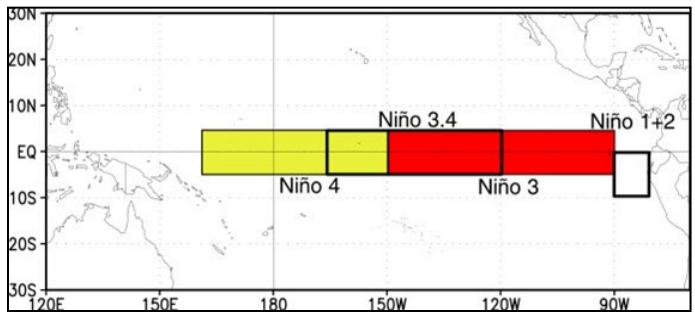
Atlantic Multidecadal Oscillation (AMO)

Average annual inflow to Lake Okeechobee is nearly 50% greater during the warm phase compared to the cold phase of the AMO, easterly flow toward south Florida affected by phase

Niño Region SST Departures (°C) Recent Evolution

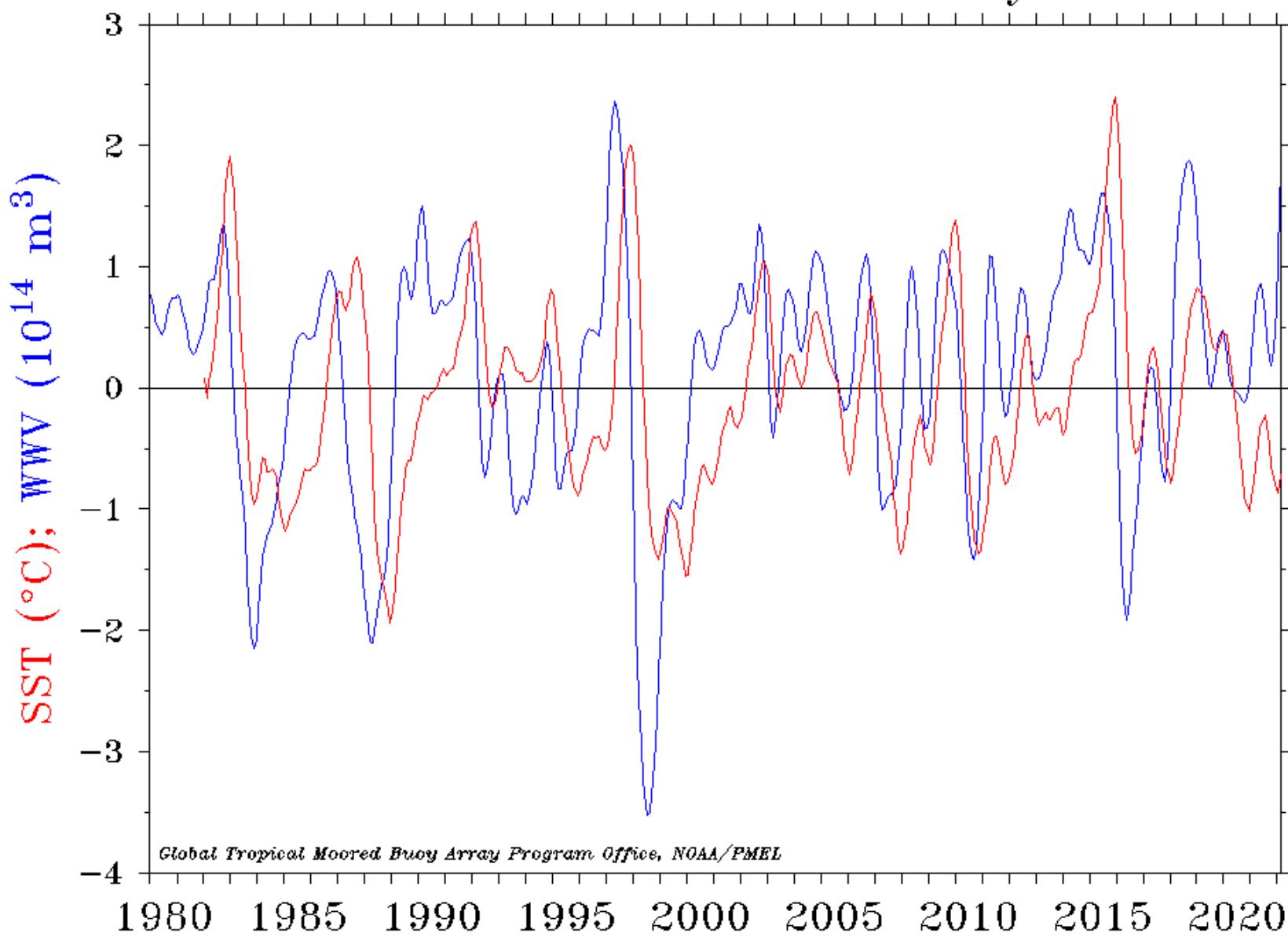
The latest weekly
SST departures are:

Niño 4	-0.6°C
Niño 3.4	-1.1°C
Niño 3	-1.2°C
Niño 1+2	-1.3°C

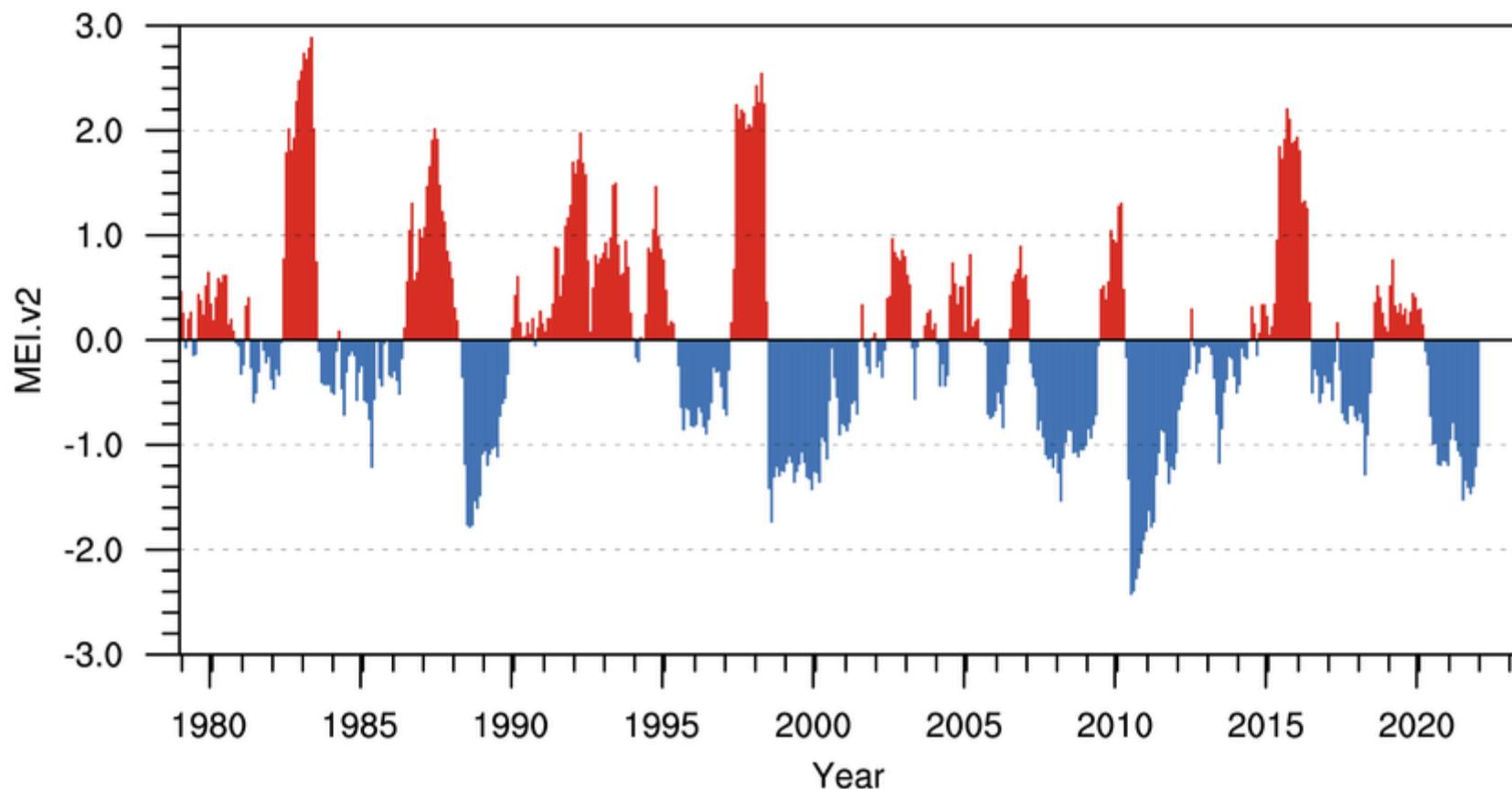


This weekly sea surface temperature data is based on OISSTv2.1 (Huang et al., 2021).

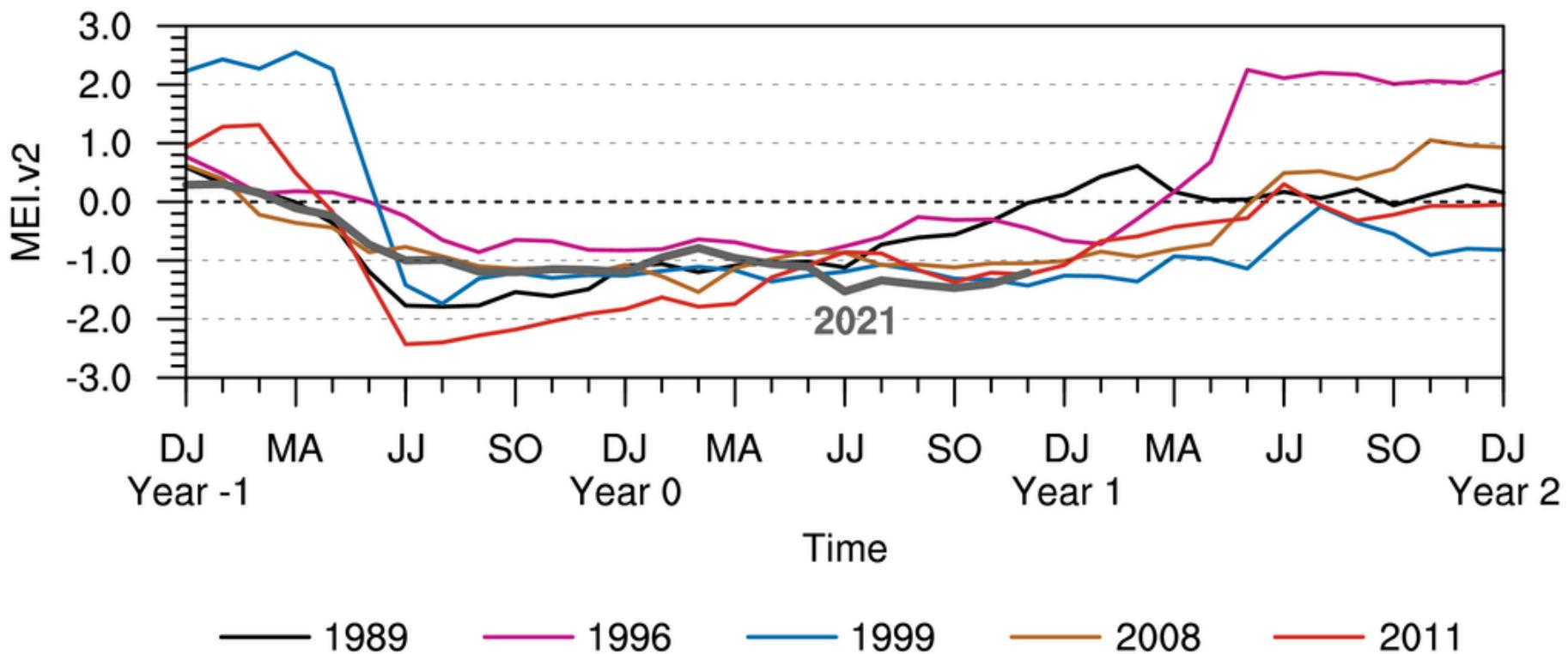
Warm Water Volume (5°N – 5°S , 120°E – 80°W)
and NINO 3.4 SST Anomaly



Multivariate ENSO Index Version 2

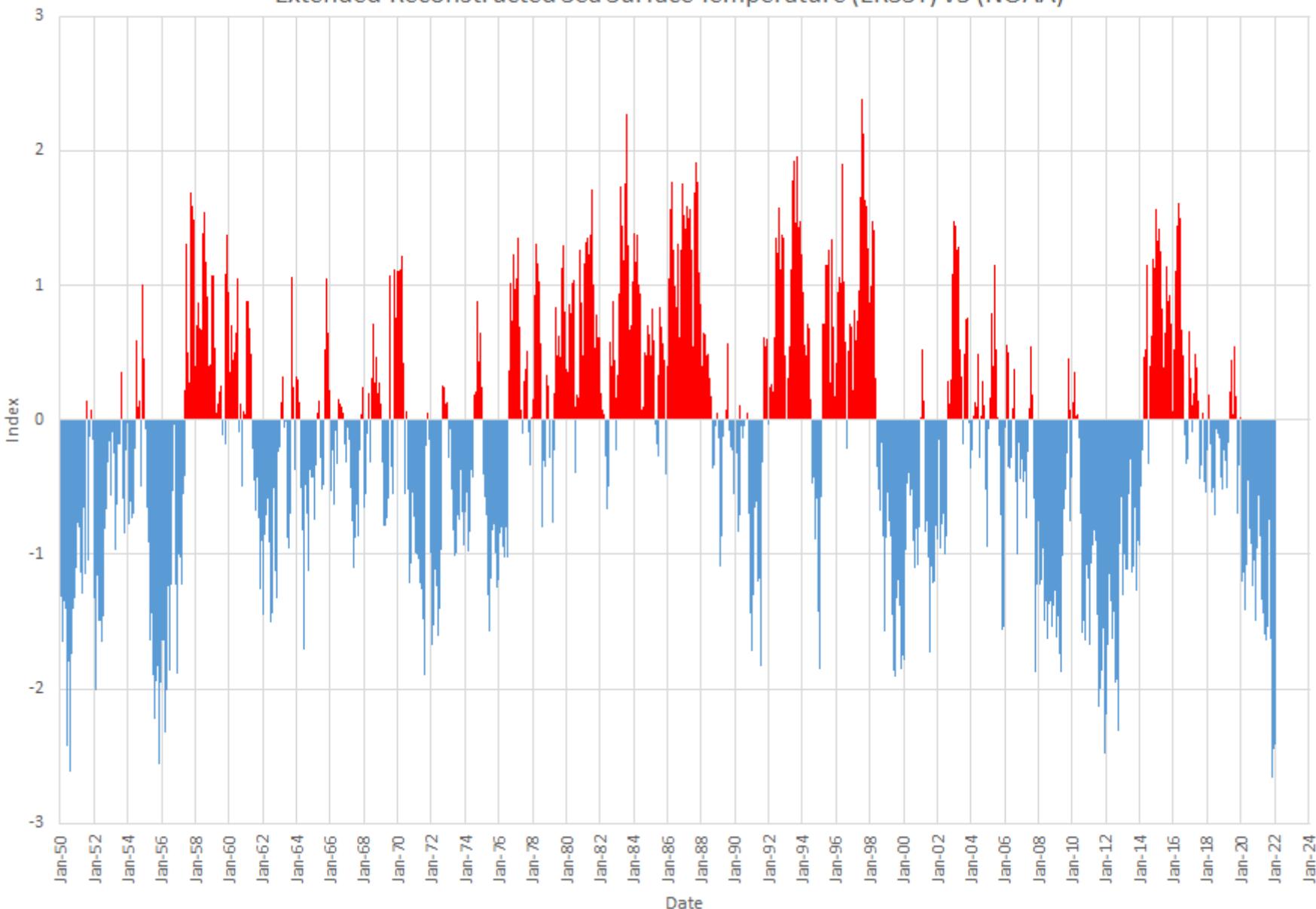


MEI.v2 Evolution of Current ENSO Event in Historical Context

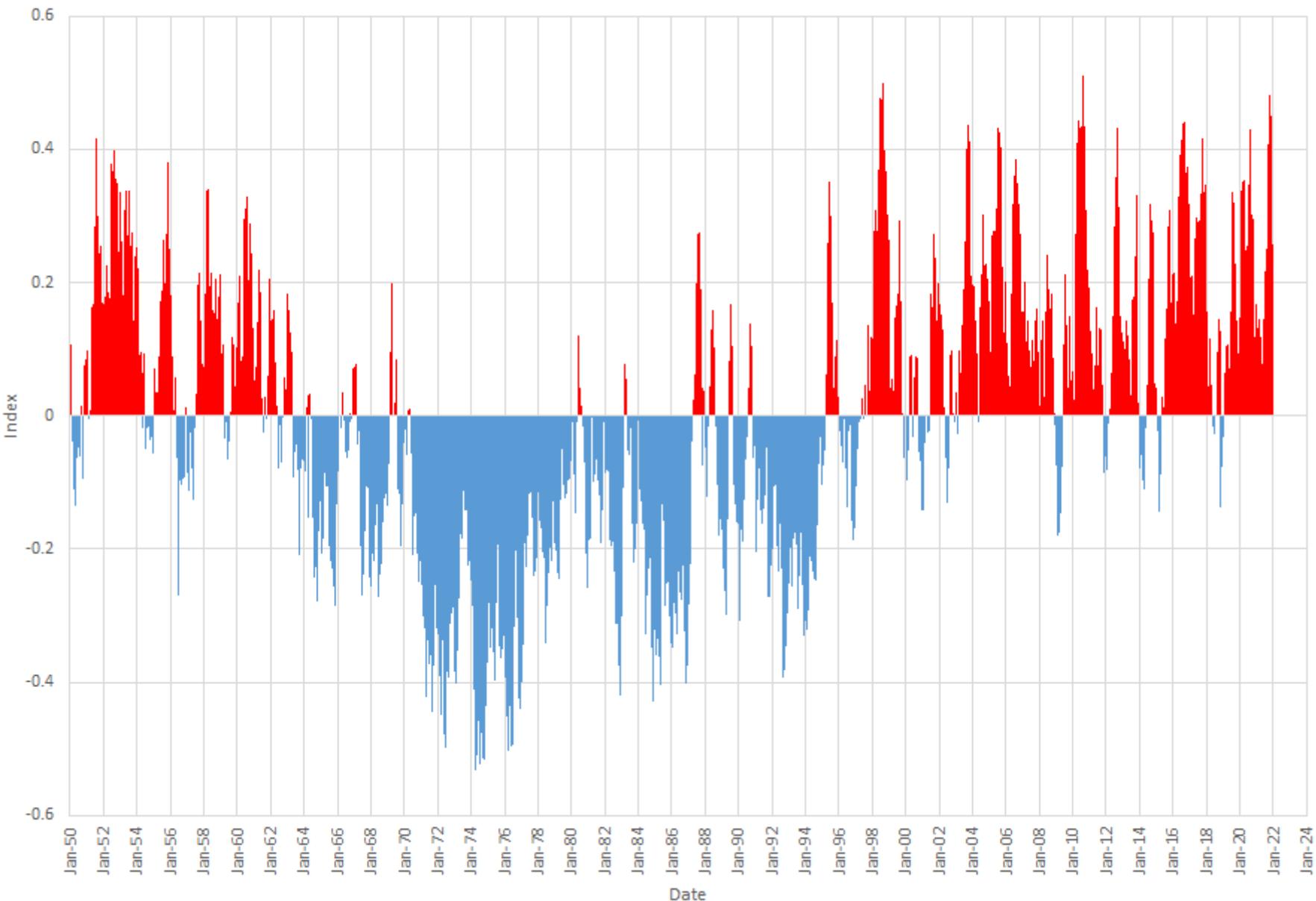


Pacific Decadal Oscillation

Extended Reconstructed Sea Surface Temperature (ERSST) v5 (NOAA)



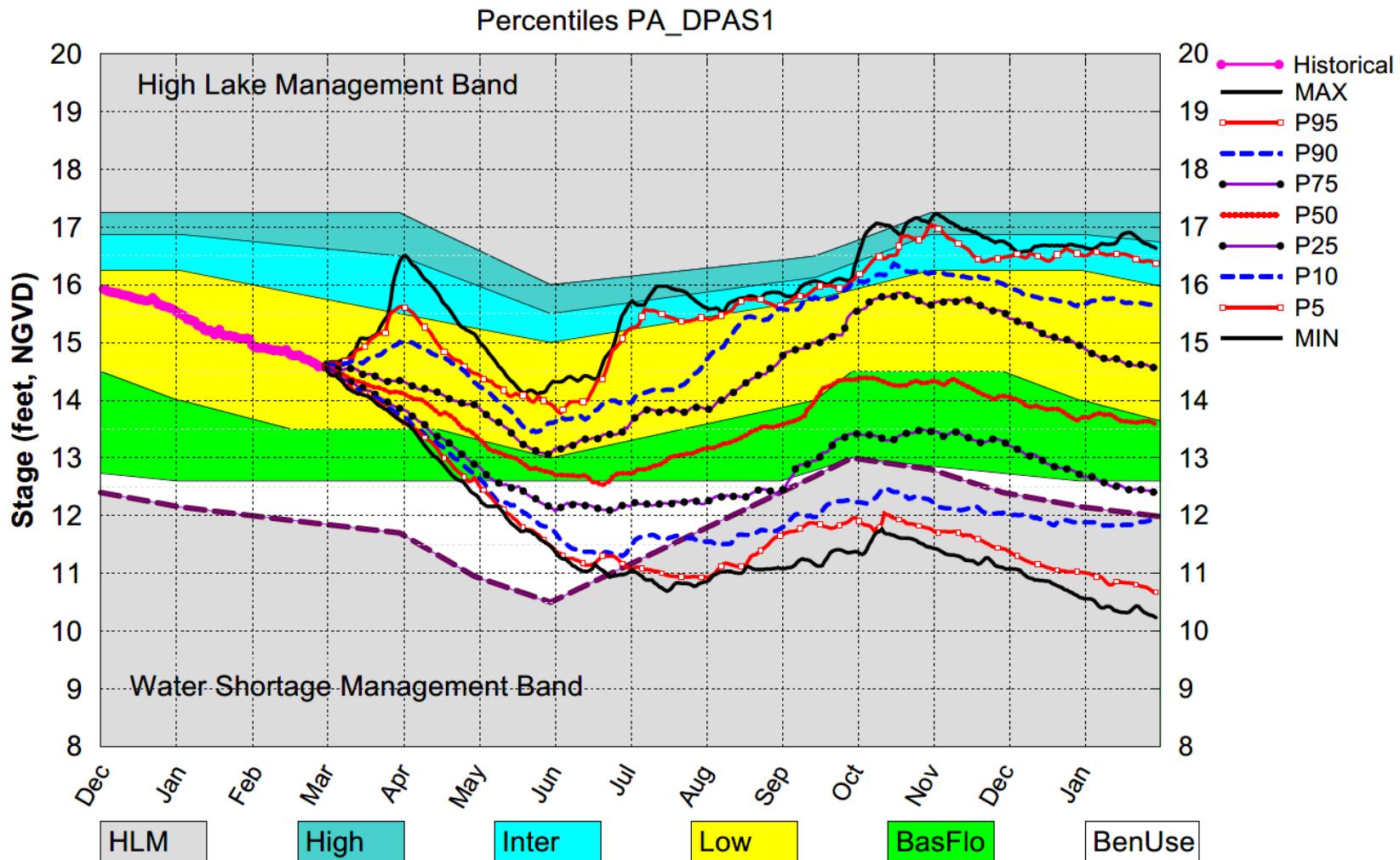
Index of the North Atlantic Temperatures (AMO) from Kaplan Extended SST V2 (NOAA)



March DPA Assumptions

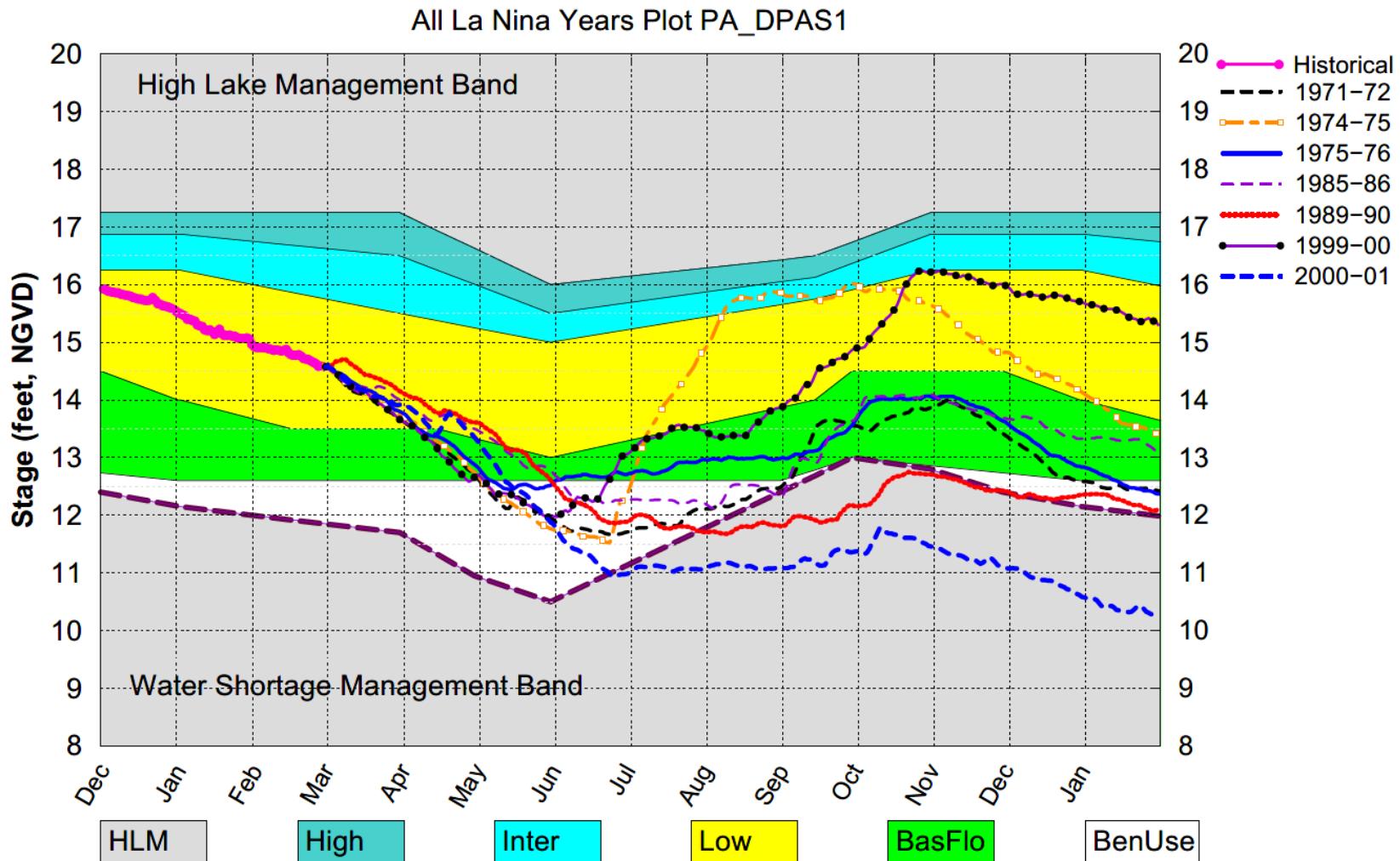
- The March 1, 2022 Dynamic Position Analysis (DPA) simulation is based on historical climatic conditions spanning the period 1965-2005. This DPA posting is made with the South Florida Water Management Model (SFWMM) v6.7.4 (Tamiami Trail) which includes the following improvement(s):
 - Improvements to include the Combined Operational Plan (COP)
- The March 1, 2022 DPA resets the initial stages for Lake Okeechobee (LOK) and the Water Conservation Areas (WCAs) on February 1st of each year of the DPA simulation and conditions the simulation to real time data during February to achieve real time stages on March 1st for LOK and WCAs.
- The Lake Okeechobee operations follow the Lake Okeechobee Regulation Schedule (LORS2008). Modeling assumptions are consistent with modeling performed for LORS2008 Supplemental Environmental Impact Statement (SEIS).
- LOK Temporary Forward Pump operations will be in place, whenever necessary, to improve water supply deliveries from LOK under low LOK stages.
- STA surface area values are modified to reflect current flowways under operation. STA depths are maintained to a minimum of 6 inches using Lake Okeechobee releases.

Lake Okeechobee SFWMM Mar 2022 Position Analysis



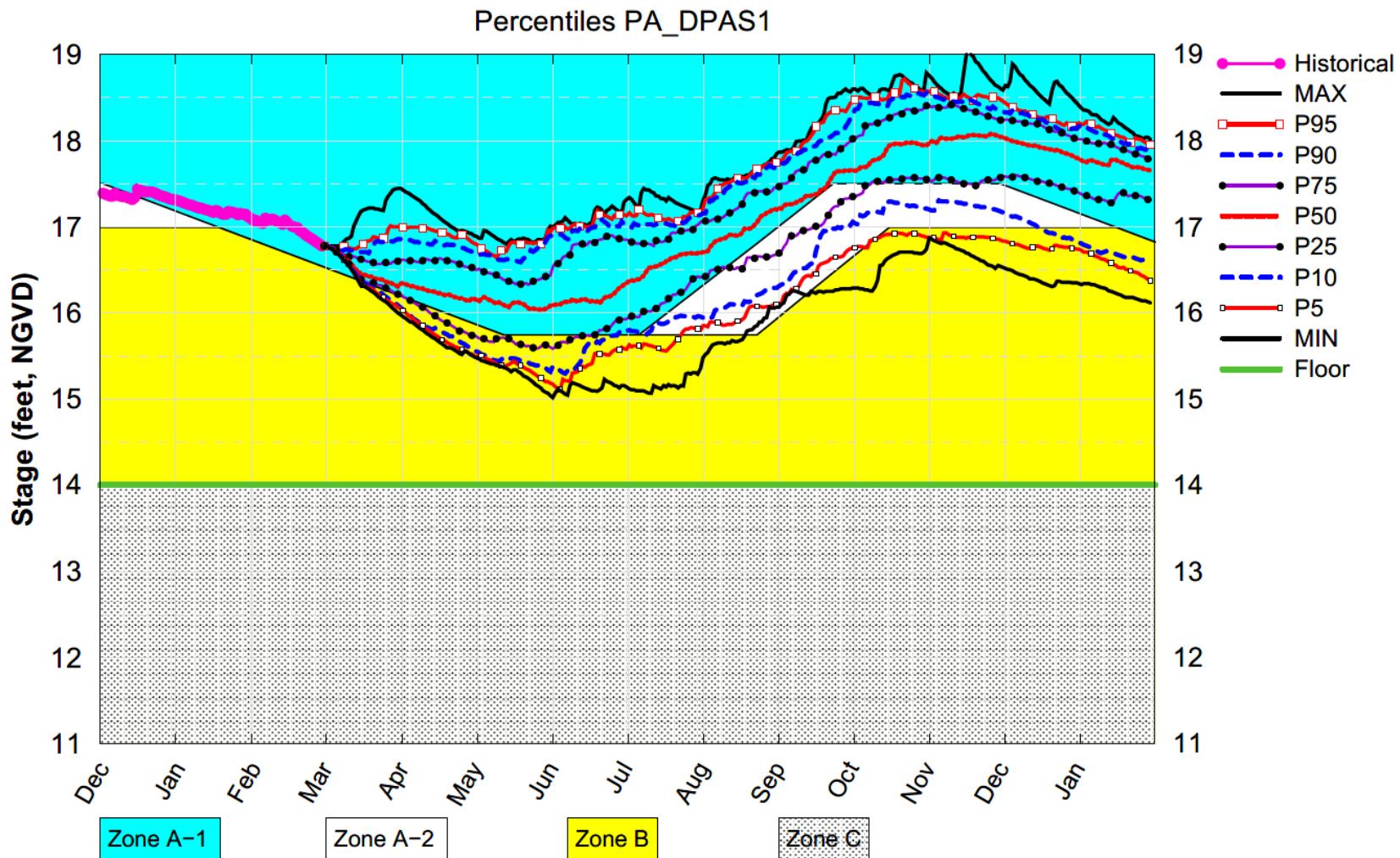
(See assumptions on the Position Analysis Results website)

Lake Okeechobee SFWMM Mar 2022 Position Analysis



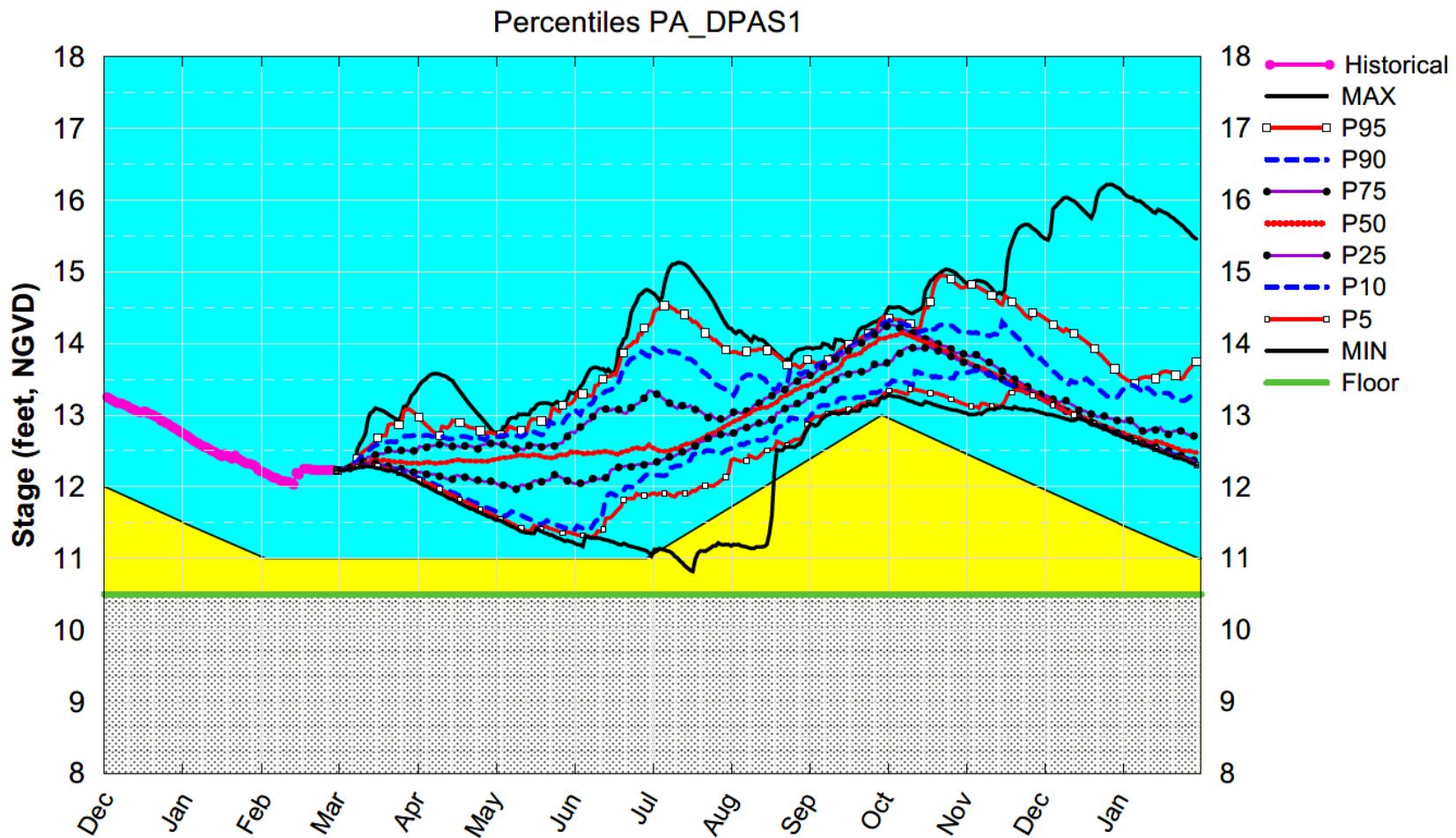
(See assumptions on the Position Analysis Results website)

WCA1 SFWMM Mar 2022 Position Analysis



(See assumptions on the Position Analysis Results website)

WCA2A SFWMM Mar 2022 Position Analysis



(See assumptions on the Position Analysis Results website)

WCA3A SFWMM Mar 2022 Position Analysis

